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JNANA BHARATHI
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BUB/CTE/2014-15 **Date: 10-05-2014**

1. TESTING OF FINE & COARSE AGGREGATES:

Sub: Testing of Fine & Coarse Aggregates (20mm)
{Project*: Improvements to Roads drain, Footpath 1st and 2nd cross and Cross roads at Ashoknagara in Ward No.14 }
Ref.: Letter No. Testing/BUB/2014-15, dated 07-05-2014
Sample supplied to lab by: Assistant Executive Engineer,
T.Dasarahalli Sub-Division.
BBMP, Bangalore.
Name of the Contractor/Agency*: Anil Kumar.S.G

TABLE - 1.1 : SIEVE ANALYSIS : Fine Aggregate

IS Sieve Size, mm	Percentage Passing	Specification as Per IS: 383-1970(Reaffirmed 2002) Percentage Passing			Remarks
		Zone-I	Zone -II	Zone -III	
04.75	**96.30**	90-100	90-100	90-100	The Sample Conforms to Grading **Zone-II**
02.36	**85.70**	60-95	75-100	85-100	
01.18	**72.00**	30-70	55-90	75-100	
600. mic	**44.90**	15-34	35-59	60-79	
300.mic	**19.00**	5-20	8-30	12-40	
150.mic	**4.90**	0-10	0-10	0-10	

TABLE 1.2 ; SIEVE ANALYSIS : 20mm

IS Sieve Size, mm	*Percentage passing* 20 mm Sample	Requirements as per IS 383-1970 (Reaffirmed on 2002) % Passing	
		Single size	Graded
40 mm	**100.00**	100.00	100.00
20 mm	**97.10**	85-100	95 - 100
10 mm	**40.70**	0 - 20	25 - 55
4.75 mm	**Nil**	0 - 5	0 - 10

*As furnished by Client.
The Results relate only to the items tested.

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BUB/CTE/2014-15 **Date: 16-05-2014**

1. TEST REPORT ON CEMENT:

Sub: Testing of 53 Grade Cement Sample (IS 12269-1987).
{Project*: Improvements to Roads drain, Footpath 1st and 2nd cross and Cross roads at Ashoknagara in Ward No.14 }
Ref.: Letter No. Testing/BUB/2014-15, dated 07-05-2014
Sample supplied to lab by: Assistant Executive Engineer,
T.Dasarahalli Sub-Division,
BBMP, Bangalore.
Name of the Contractor/Agency*: Anil Kumar.S.G

PHYSICAL TESTS ON CEMENT

Brand* : Birla Super
Grade * : 53
Type * : OPC
Date : 08-05-2014 to 15-05-2014

SL No	Name of Test	Results	Requirements as per
		Cement Sample	IS 12269-1987
1	Initial setting time	**162 min**	Shall not be less than 30 min
2	Final setting time	**260 min**	Shall not be more than 600 min
3	Fineness (by dry sieving on IS 90 micron sieve)	**2.70 %**	Not to exceed 10.0%
4	Soundness test(by Le-Chatelier's method)	**1.46 mm**	Shall not be more than 10 mm
5	Compressive strength a) 3 days (average of three results) b) 7 days (average of three results)	**29.10 N/ Sq mm** **40.34 N/Sq mm**	Shall not be less than 27 N/Sqmm Shall not be less than 37N/Sqmm

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BUB/CTE/2013-14

1. TESTING OF COARSE AGGREGATES (40 mm): **Date: 10-05-2014**

Sub: Testing of Coarse Aggregates.
{Project*: Improvements to Roads drain, Footpath 1st and 2nd cross and Cross roads at Ashoknagara in Ward No.14 }
Ref.: Letter No. Testing/BUB/2014-15, dated 07-05-2014
Sample supplied to lab by: Assistant Executive Engineer,
T.Dasarahalli Sub-Division,
BBMP, Bangalore.
Name of the Contractor/Agency*: Anil Kumar.S.G

Table - 1.1 : SIEVE ANALYSIS :

IS Sieve Size, mm	Percentage passing	Requirements as per IS 383-1970 (Reaffirmed on 2002) % Passing	
	40 mm Sample	*Single size*	*Graded*
40mm	97. 40	85-100	95 – 100
20mm	36.00	0 -20	30- 70
10mm	17.70	0 -5	10- 35
4.75mm	Nil	------	0 - 5

TABLE 1 2 :

SL No	Test conducted	Sample No	Results	Requirements as per IS:383-1970 & Test Conforms to IS 2386(Part I to IV) – 1963 (Reaffirmed on 2002)
1.	Flakiness Index	As above	15.30 %	Not to exceed 25 %
2.	Crushing value	----,,----	24.30 %	Not to exceed 45 % for concrete other than for wearing surfaces and 30% for concrete for wearing surfaces

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JNANA BHARATHI
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BUB/CTE/2014-15 **Date: 26-06-2014.**

1. TEST REPORT ON CEMENT CONCRETE CUBES:

Sub: Testing of Concrete Cubes for 28 days Compressive Strength
{Project*: Improvements to Roads drain, Footpath 1st and 2nd cross and Cross roads at Ashoknagara in Ward No.14 }
Ref.: Letter No. Testing/BUB/2014-15, dated 25-06-2014
Sample supplied to lab by: Assistant Executive Engineer,
T.Dasarahalli Sub-Division,
BBMP, Bangalore.
Name of the Contractor/Agency*: Anil Kumar.S.G

RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE

CUBE SPECIMENS

Dimensions of Specimen : 150 X 150 X 150mm
Grade of Concrete* : M_{20}

TABLE 1.1 :

Sl No	Location/ Identification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in Mm^2	Maximum Load in K.N	Compressive Strength (N/mm^2)	Avg. Value
1	001	28-05-14	25-06-14	28	22500	540	24.00	**23.33**
	002	"	"	"	"	525	23.33	
	003	"	"	"	"	510	22.66	

*As Furnished by Client.

The Results relate only to the items tested.

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ನೈಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ
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BUB/CTE/2014-15

Date: 28-05-2014

TEST REPORT ON WET MIX MACADAM MIX
(GRADATION TEST)

Sub: To conduct Gradation test on Wet Mix Macadam (WMM) Mix.
{Project*: Improvements to Roads drain, Footpath 1st and 2nd cross and Cross roads at Ashoknagara in Ward No.14 }
Ref.: Letter No. Testing/BUB/2014-15, dated 07-05-2014
Sample supplied to lab by: Assistant Executive Engineer,
T.Dasarahalli Sub-Division,
BBMP, Bangalore.
Name of the Contractor/Agency*: Anil Kumar.S.G

TEST RESULTS

1. Gradation Test:
TABLE 1.1

Sieve Size mm	**Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)**	**Specified Limits as per MoRTH Specifications, IV Revision-2001**
53	100.00	100
45	96.50	95-100
26.5	---	-
22.4	74.00	60-80
11.2	53.20	40-60
4.750	33.60	25-40
2.360	16.20	15-30
0.600	15.60	8--22
0.075	2.00	0--8

*As Furnished by Client.
The Results relate only to the items tested.

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BUB/CTE/2014-15 **Date: 10-05-2014**

1.TEST REPORT ON BITUMEN SAMPLE :

Sub: Testing of Bitumen sample: (80/100 Grade).
{Project*: Improvements to Roads drain, Footpath 1st and 2nd cross and Cross roads at Ashoknagara in Ward No.14 }
Ref.: Letter No. Testing/BUB/2014-15, dated 07-05-2014
Sample supplied to lab by: Assistant Executive Engineer,
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Name of the Contractor/Agency*: Anil Kumar.S.G

TABLE 1.1 ;

SL No	Details	Method.	Test Results	Requirements as per I.S – 73 –1992 Specifications
1.	Specific Gravity at 27^0 C, (g/ml)	IS 1202	**1.002**	>0.99
2.	Penetration at 25^0 C	IS 1203	**85.0**	80 - 100
3.	Ductility Value at 27^0 C	IS 1208	**92.0 cm**	Not less than 75 cm
4.	Flash point	IS 1209	**254^0 C**	Minimum 175^0 C
5.	Softening point	IS 1205	**50^0C**	40^0C - 55^0C
6.	Water percent by mass	IS 1211	**Nil**	Max 0.2

**As Furnished by Client.
The Results relate only to the items tested.

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BUB/CTE/2014-15

Date: 25-06-2014

TEST REPORT ON BITUMINOUS MIXES
(BITUMEN EXTRACTION TEST & GRADATION TEST)

Sub: Testing of Bitumen Premix Sample (Semi Dense Bituminous Concrete-SDBC).
{Project*: Improvements to Roads drain, Footpath 1st and 2nd cross and Cross roads at Ashoknagara in Ward No.14 }

Ref.: Letter No. Testing/BUB/2014-15, dated 07-05-2014

Sample supplied to lab by: Assistant Executive Engineer,
T.Dasarahalli Sub-Division,
BBMP, Bangalore.

Name of the Contractor/Agency*: Anil Kumar.S.G

TEST RESULTS :

1. The bitumen content obtained after subjecting the sample for Bitumen Extraction test = **5.10 %**
2. **Gradation Test :**

Sieve Size, mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Gradation requirement as per Table 500-15 of MORTH Specfications-2001 (Grading – 2)
13.2	100.00	100
9.5	96.30	90—100
4.75	45.00	35—51
2.36	27.00	24—39
1.18	19.30	15—30
0.3	11.00	09—19
0.075	4.60	03—08

*As Furnished by Client.

The Results relate only to the items tested.

25/06/2014

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